

the route between
ATLANTIC COAST
and
THE FAR WEST
via
CANADA GRAND TRUNK
and
EASTERN MICHIGAN RAILWAYS

JO Browne delin^t

181

REPORT

ON THE

Port Huron and Lake Michigan

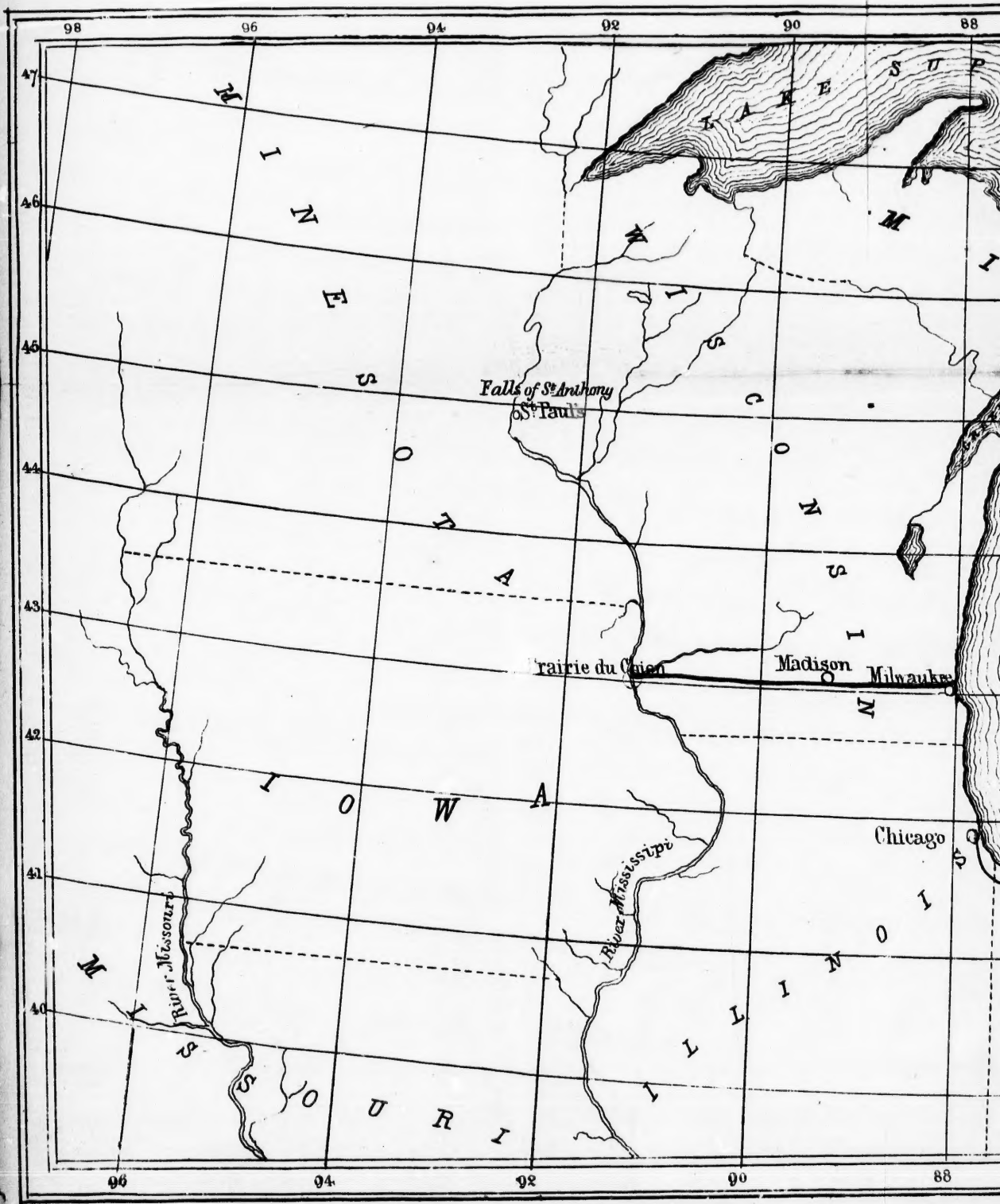
("MICHIGAN NORTHERN")

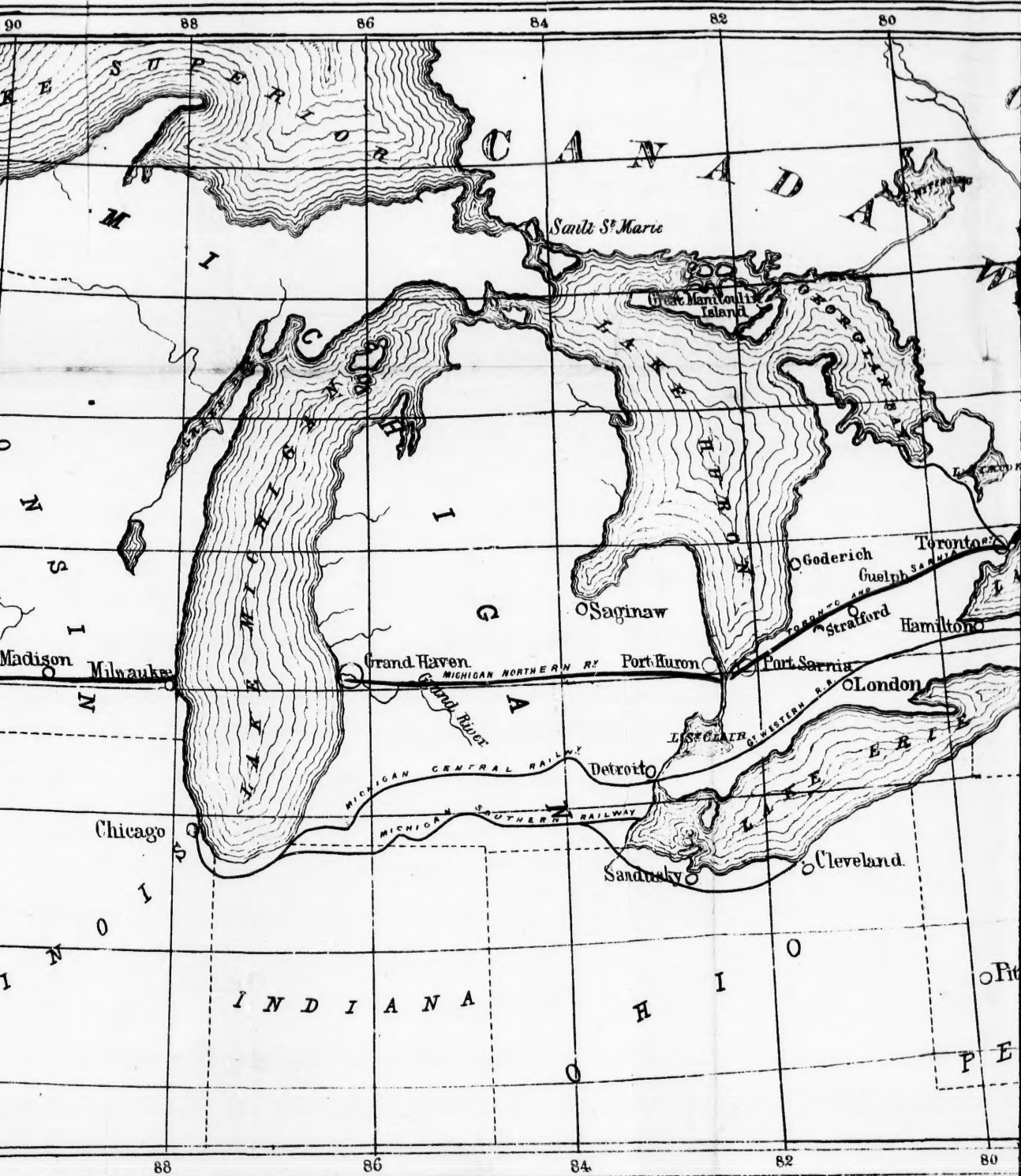
Railway.

~~~~~  
BY WALTER SHANLY,  
Civil Engineer.  
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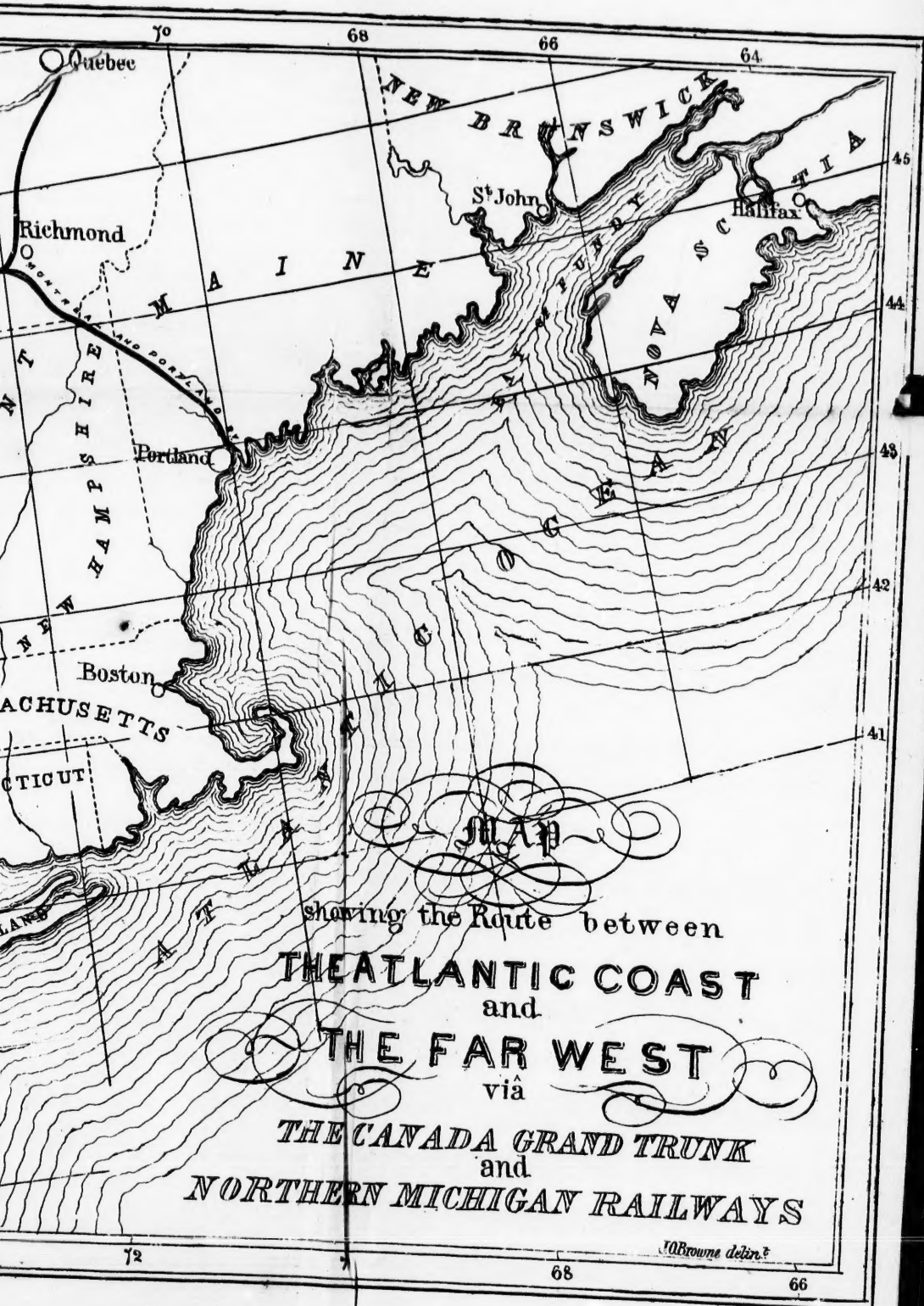
TORONTO :

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1854.









MAP
showing the Route between
THE ATLANTIC COAST
and
THE FAR WEST
via
THE CANADA GRAND TRUNK
and
NORTHERN MICHIGAN RAILWAYS

J. O. Browne delin.

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REPORT.

TORONTO, 9th March, 1854.

TO THE PRESIDENT AND DIRECTORS
OF THE PORT HURON AND LAKE MICHIGAN
RAILWAY COMPANY:

GENTLEMEN,—In laying before the public a report on the project of a Railway across the upper part of the Peninsula of Michigan, from Port Huron, at the foot of Lake Huron, to Grand Haven, on Lake Michigan, the object of the undertaking will be best elucidated by my first sketching the geographical position and outline of the State, and briefly reviewing the history and progress of the principal Railroads already in operation within its limits.

The State of Michigan is the largest in the Union, having an area of upwards of 100,000 square miles. The principal portion of this immense territory takes the form of a peninsula, or promontory, washed on three sides, east, north and west, by the waters of the great lakes, Erie, Huron and Michigan; having a coast line of about 700 miles of navigable water, indented by commodious bays and harbours. On the south it meets the fertile, wealthy and populous States of Ohio and Indiana.

The extreme length of the peninsula, from its southern boundary on the Ohio line, to its most northerly point, on the Straits of

Mackinaw, is about 280 miles—its breadth, where greatest, some 200 miles.

Across this peninsula there are already in existence two great arterial lines of Railway: "The Michigan Central" and the "Michigan Southern" Roads, traversing it from east to west, and so placed with regard to each other as to be, in all essential points, eminently competing lines. They are parallel as to general direction, and where furthest removed from one another scarce 50 miles apart, whilst they often approach within 20 miles; both lie in the extreme southern section of the State, the most northerly of the two, the "Central," being at an average distance of not to exceed 35 miles above the southern boundary of the Peninsula, of the whole geographical surface of which nine-tenths may be said to lie to the north of its most northerly line of Railway. The eastern termini of these roads are on the waters of Lake Erie; to the west they connect with the thriving City of Chicago, in the State of Illinois.

An investigation of the business and financial returns of these two routes, rivals as they are, cannot fail to create a lively conception of the progress and vast resources of that portion of the United States commonly denominated the "Far West," the commerce of which region is yearly increasing in a ratio to which the history of civilization furnishes no parallel. The Reports of the Directors and Superintendent of the Michigan Central Road, of June, 1853, are highly interesting, and, I may add, instructive, documents. The length of the road, within the State, is 217 miles—its cost has been eight millions three hundred thousand dollars,—of which a little over four millions were raised by shares, the balance on (mainly eight per cent.) Bonds. This road has paid dividends as high as fourteen per cent. per annum, and never less than eight per cent. I have attached hereto, detailed statements, in tabular form, (viz., Appendix A,) exhibiting the earnings and cost of working the Central Road for some years past, as published by its Board of Directors.

The "Michigan Southern Road" presents a still more favourable picture. It has been in operation less than three years; in June last a semi-annual dividend of seven per cent. was declared, five

per cent having been paid on the previous half year, making the total dividend for the year, twelve per cent upon the capital stock. The Central Road earned last year one million one hundred and fifty thousand dollars; the Southern, one million three hundred thousand.

By far the largest and most profitable portion of the business of each of these systems is derived from "way traffic:" about 70 per cent. of the earnings of the Central Road being of that denomination: and in this branch of their trade each succeeding Annual Report shows a steadily progressive increase, both of passengers and merchandise, over the preceding year's exhibit.

Instigated by two such examples of the successful results of railway enterprise in the State of Michigan, the construction of another great arterial line is contemplated: a line which will command the trade of a section of country far greater in extent than that which the rival lines, above referred to, divide between them, and unsurpassed within the State for salubrity of climate, or fertility of soil.

The "PORT HURON AND LAKE MICHIGAN," or "MICHIGAN NORTHERN" Railway, to lie some 50 miles north of, and parallel to, the Central, is designed nearly to bisect, in a due east and west direction, the peninsula already described.

Port Huron is situated a little below the foot of the lake of that name, on the west bank of the River St. Clair, and directly opposite to PORT SARNIA, the Western Terminus of the "Grand Trunk Railway of Canada." The width of the river here is half a mile, the water deep, forming a commodious and safe harbour, with a current just rapid enough to prevent it from ever being ice-bound, a ferry plying between the two ports the year round. A short distance above these terminal points, the river, at the "debouchement" of Lake Huron, presents (excepting a portion of the Niagara River below the Falls,) the narrowest point on the waters between Lake Superior and the Sea—the width between banks for some distance being only a little more than 800 feet.

On a due east and west line from Port Huron the width of the Peninsula is just 200 miles, to Grand Haven, on Lake Michigan,

the point contemplated as the western terminus of our road, and where there is a spacious and well sheltered harbour. The same line produced intersects the flourishing City of MILWAUKEE, occupying a commanding position on the western coast of the lake, and the commercial metropolis of the great State of Wisconsin. The *Detroit Daily Times*, speaking of the business prospects of the "Port Huron and Lake Michigan Railroad," thus compares the extent of territory tributary to the Central and Southern Roads with that from which the Northern Line would draw its revenue.

"No section of the State of Michigan offers more productive resources than that portion through which this road will run. The first and second tiers of counties in Michigan, running east and west, are penetrated through nearly their entire length by the Southern Michigan and Michigan Central Railroads, and the total area of the counties which these two roads pierce, is only 8,066 square miles, while the third, fourth and fifth tiers of counties, that must, per force, give their trade to the Port Huron and Lake Michigan Road comprise over 1,400 square miles."

Subjoined is a list, with the census returns for the years 1837 to 1850, inclusive, of the "fourth tier" of counties, those to be pierced by the Port Huron and Lake Michigan Railway.

	1837	1840	1845	1850
St. Clair.....	3673	4606	7562	10411
Lapeer	2602	4265	5314	7026
Genesee.....	2754	4268	9266	12031
Shiawassee	1184	2103	3921	5233
Clinton	529	1614	3010	5102
Ionia	1028	1923	5101	7597
Kent	2022	2587	6153	12917
Ottawa	626	704	1417	5587
	14418	22070	41744	65904

There has been a large immigration into these counties since the last census (1850): competent judges estimate the increase of population since that time at 33 per cent., which would give, for the eight counties above named, a present population of over \$1,000. Allowing the same ratio of increase to the range of

counties adjoining, on either side, those through which the road is to pass, we will have a total present population of 175,000 souls on which to base our calculations of the business prospects of the enterprise. The following extract, from the official return of the valuation of real and personal estate in the counties named, is pleasingly illustrative of the rapid advance of civilization :—

	1851	1853	Increase.
	\$	\$	\$
St. Clair.....	677,261 25	3,909,044 00	3,231,782 75
Lapeer.....	406,400 88	1,666,118 59	1,259,717 71
Genesee.....	735,209 23	3,114,356 00	2,379,146 77
Shiawassee.....	411,666 49	1,280,488 00	868,821 51
Clinton.....	332,783 00	1,164,959 00	832,176 00
Ionia.....	515,993 67	2,007,218 87	1,491,225 20
Kent.....	883,014 78	3,562,828 00	2,679,813 22
Ottawa.....	481,847 23	1,322,479 70	840,632 47
	4,444,176 53	18,027,492 16	13,583,315 63

For products, importations, state of agriculture, &c., in these counties, according to the last official census, I refer you to Appendix B.

The natural characteristics of the country along and adjacent to the line of road are in the highest degree conducive to settlement. My first exploration of the route was in the month of September, when the luxuriant crops of corn which waved over the cleared lands, and the heavy burden of fruit under which the peach trees in the gardens were weighed down, combined to form a pleasing picture of agricultural wealth, leaving no doubt upon the mind as to the productiveness of the soil, and inducing a conviction that this section of the State is destined at no distant day to rival in population, products and civilization the most favoured settlements anywhere to be met with on the continent.

The principal STREAMS which water this region, are, on the east, the Saginaw, having a northerly course, and falling into Lake Huron in Saginaw Bay, 50 miles above our line of road. On the west is the Grand River, discharging into Lake Michigan at Grand Haven, our western terminus. This river takes its rise

south of our road, which crosses it at the Village of Lyons, 75 miles from Grand Haven. It has a winding course of about 150 miles, watering throughout its entire length a beautiful and fertile valley. There are various minor streams tributary to the two leading ones above named; of these, the most prominent are, Belle River, the Flint, the Thread, the Shiawassee, Stoney River, the Maple and the Thornapple, unimportant, viewed as obstacles to railway construction, but all of highly fertilizing character to the country they irrigate.

The region north of the tier of counties to be penetrated by the Northern Railroad, is remarkable for the quantity and quality of its PINE Timber; already there are manufactured for export, about *one hundred and seventy millions of feet (board measure,)* annually. The route, except at the two extremities where it cuts spurs of the northern pinery, is through lands abounding (where not yet settled,) with the finest qualities of those kinds of timber that indicate a soil well adapted for agriculture; the OAK, in particular, is of majestic growth, and destined to become a source of much wealth to its owners, and of much profitable traffic to the railway.

In order fully to explain the value of a timber trade to the region to which I have reference, it will be as well here to remark that the boundless countries lying to the west of Lake Michigan can furnish in abundance nearly all the useful products indigenous to American soil, and indispensable to its settlement, save the one article of *lumber*—its supplies of which are already drawn in vast quantities from the opposite side of the Lake. To what point the demand for this article of commerce, already immense and yearly increasing in almost geometrical progression, may reach, it would be difficult to calculate, in a country that can boast of cities containing fifty thousand inhabitants where twenty years since stood the wigwam village of the Indian. But let the demand be what it may, the northern spur of the peninsula of Michigan can meet whatever drafts may be made upon it for a century to come. The valley of the Grand River has inexhaustible beds of GYPSUM, an important article of commerce even now, being exported to the extent of about four thousand tons annually, and certain to become of great value once proper facilities for transportation shall have been est-

ated. COAL is found at Corunna, midway of the route, and although the beds have not been so fully tested as to properly define their extent, it is mined in sufficient quantities to be in common use in the forges of the neighbourhood.

The towns and villages touched by the line of road are, Lapeer, Flint, Corunna, Owasso, Lyons, Ionia, and Grand Rapids. This latter, ranking as a city, has a population of upwards of five thousand inhabitants: is a well built and prosperous town, possessing, in the falls of the Grand River, a water power that I have rarely seen surpassed, and which has already been turned to good account for manufacturing purposes, by the enterprising inhabitants of the place. The other towns noted all exhibit a steady, healthy growth, indicative of their being the business centres of fertile and cultivated districts.

The general "contour" of the country is of uniform character: undulating, with occasional "oak prairies" and gravel ridges. The Bridging not of formidable character, the Grand River being the only river, properly so called, to be crossed. The "allignment" of the road will be good, there being few points where a less radius of curvature than one mile need be resorted to. The waters at the Termini, Lakes Huron and Michigan, are on the same level, and the greatest elevation on the route but 300 feet above their surface; the summit being attained by a gradual ascent at 35 miles from Lake Huron. The gradients generally need not exceed 35 feet per mile, except in the vicinity of Grand Rapids City, where the importance of touching at so commanding a point for business will render it expedient to resort to some short planes of 50 feet in the mile.

The road can be perfectly constructed, on a specification similar to that of the Grand Trunk Railway, with Iron Bridges, Station Buildings of Stone or Brick, Rail 63 lbs. to the yard, &c., for forty thousand dollars (\$40,000) per mile; or, the length being assumed at 200 miles, for a total outlay of eight millions (\$8,000,000.)

Before closing this report, I will touch more fully on the sources whence the returns for such an outlay are to be looked for.

Thus far I have treated "The Michigan Northern Railway" project as a local one, pertaining to the State of Michigan. I would

now crave your attention while I consider it in a more extended bearing—as a link in the artery which is to connect the shores of the Atlantic with those of the Pacific Ocean.

I have stated that the Eastern starting point of the road is opposite to—and separated from by only a few hundred feet of water—Port Sarnia, the Western terminus of the Grand Trunk Railway of Canada. Directly opposite to the other termination of the route, and distant from it by the width of Lake Michigan (95 miles,) stands MILWAUKEE, already noticed as the commercial metropolis of the great State of Wisconsin, and now numbering a population of 30,000 souls; which, estimating from its past progress as well as from the magical growth of kindred cities in the Far West, may be counted upon as likely, if not certain, to double within the next five years.

I would here beg leave to refer you to the map of the United States and Canada, and to direct your attention to the route of the Grand Trunk Railway from Halifax, Nova Scotia, or from Portland, State of Maine, to Montreal; thence following the banks of the St. Lawrence to Toronto; from Toronto in a generally westerly direction to Sarnia;—at which point you are close under the 43rd parallel of latitude;—running your finger along the parallel, westward, you will intersect Port Huron, Grand Haven, Milwaukee: all points in the same leading line from Lake Ontario to the broad West; and still pursuing it beyond Milwaukee, 160 miles further towards the Pacific, you reach the great Mississippi river at Prairie-du-Chien. Beyond is invitingly spread out the immense State of Iowa, and the vast Minnesota Territory, already past the first stage of transition from savage to civilized life, and destined to be the homes of millions of an industrial population, converting to smiling harvest fields the wild, but fertile, prairies that till yesterday were in undisputed possession of nomadic tribes of Indians and countless herds of buffalo.

From Prairie-du-Chien the Mississippi is navigable, downwards, 1500 miles to the Gulf of Mexico; upwards, 160 miles to St. Pauls, at the Falls of St. Anthony; to which point steamers are daily plying during the season of navigation. There is a railway already constructed and in operation from Milwaukee to Madison, half way to Prairie-du-Chien: the whole distance will be com-

pleted in less than three years; and though, by the time the Mississippi is reached, we have travelled due west twelve hundred miles since landing on the Atlantic coast, and four hundred and fifty miles since crossing from Canada into Michigan, we are still scarcely more than on the threshold of the FAR WEST; which, like the mirage on its prairies, seems ever to recede before the bewildered traveller, lost in the immensity and fertile sameness of the regions that surround him.

With a long route from the West, terminating at Milwaukee, and the gigantic Trunk line of Canada, terminating at Sarnia, a link between the two, such as the "Northern Michigan" road would be, must command an immense *through* travel. Nor need the break in the chain, caused by the crossing of Lake Michigan, be looked upon as detrimental to the interests of such a line. Let Railways prosper as they may, declare what dividends they may, the time will never come when the Great American Lakes will be destitute of passenger steamers. The effect of the "Michigan Southern" and "Michigan Central" Railways, each carrying 250,000 passengers annually, has been to set afloat Steamers to surpass in size, splendor, and motive power, the largest of the "floating palaces" that had previously been launched upon those waters; and there are vessels now upon the stocks intended to outdo, in all particulars, those magnificent specimens of marine architecture, such as the "St. Lawrence," the "Mississippi," &c. which now form the connection, *in opposition to Railways on the south shore of Lake Erie*, between the ports of Detroit, Sandusky, Cleveland, and Buffalo. The traveller, eastward bound, from beyond the Mississippi, or westward bound from Lake Ontario, weary of a long day passed in the Railway carriage, will joyfully hail a sunset view of the clear waters of Lake Michigan and the prospect of a night of rest on board the steamer awaiting him in the harbor of Milwaukee, or Grand Haven. The traveller for the East awakens next morning, at the port last named, to take his seat in the train for Sarnia, where he arrives at 10 a. m., and at three in the afternoon of the same day finds himself in Toronto, where, if he be travelling for pleasure, as thousands from the South and West do in summer, he may again take the water, for the sake of enjoying the scenery of the St. Lawrence; the man of business, bound for the Atlantic cities or Europe, will keep the rail to Mon-

trear and Portland, or else cross the Lake to Niagara or Rochester, For the Emigrant, about to seek a home in the far West, no ports offer so speedy a voyage across the ocean as Halifax and Portland: no route thence to his destination so great convenience and directness as that through Canada, Northern Michigan, and Wisconsin.

The following table gives the distances on the route above laid down, from the Mississippi, at Prairie-du-Chien, to the seaport city of Portland in the State of Maine. It would be difficult to lay down any much shorter route from Wisconsin, the upper part of Iowa and the whole Minesota Territory, to the Atlantic; and no route, however short, to any seaport north of the 40th parallel, in which the "MICHIGAN NORTHERN RAILWAY will not be a link.

TABLE OF DISTANCES.

	Miles.	Miles.
Prairie-du-Chien to Milwaukee.....	160	
Milwaukee (per steamer) to Grand Haven	85	
Grand Haven to Port Sarnia.....	202	
Port Sarnia to Toronto	168	615
Toronto to Kingston	165	
Kingston to Montreal.	178	343
Montreal to Portland	290	290
Total distance from Mississippi to Atlantic		1,248

The carrying out of a contemplated "air-line" route, to improve on the Montreal and Portland section of the Grand Trunk, will reduce the above given distance by about 40 miles.

The fact of two competing lines, dividing between them so small a portion of so large a State, making such handsome returns on the capital expended in their construction, as the "Michigan Central" and "Michigan Southern" Railways do, might almost be taken as sufficient guarantee for the success of the 'Port Huron and Lake Michigan' project, even had we no other data on which to ground our expectations. We have, however, a large and rapidly increasing population, and a wide extent of fertile territory, adapted to all purposes of civilization, on which to base our calculations of a large *local* traffic, and favorable geographical position, with connections at either end of our line, to warrant us in

looking forward with confidence to a paying *through* business.

Carefully compiled statistics of Railway traffic in the New England States and the State of New York, extending over several years, have ascertained the average local receipts from the territory tributary to a Railway to be equal to three dollars (\$3) per head, per annum, of the population. The statistics of the Michigan Central Road tally singularly closely with those of the older States. In a Report by Mr. Higham, Chief Engineer of the "Oakland and Ottawa Railway," I find it stated that the "average local or domestic receipts of the Michigan Central Central Railroad for the last five years have equalled \$36.46 per square mile—\$3.02 for each inhabitant, tributary to that road." I have already shown that we may count on a present population within our legitimate territory, of 175,000, and may fairly calculate on its having increased to 235,000 by the close of the year 1858; allowing three dollars as the sum that each inhabitant will contribute indirectly to the support of the road, we will have from local sources, in 1858, a revenue of \$705,000—equal to but \$50 per square mile of a territory from which at the expiration of another four years' interval we may reasonably expect to derive an income at least equal to the present average receipts of the Central road—\$86 per square mile.

In the matter of *through* business I do not fear to be charged with estimating too hopefully if I assume that in the year 1858 this great Northern route will draw as many *through* passengers as the Central, with a powerful rival close by, did in 1853: upwards of 77 500. For *through freight*, I will also assume last year's tonnage of the Central road (supposing but thirty per cent. of the whole to be of that denomination) as the probable minimum amount of that portion of your business five years hence. Estimating on which basis 50,000 tons of merchandise would pass *through*, from end to end of the Michigan Northern Railway, within the first twelve months after its completion.

From the foregoing data I arrive at an estimate of Revenue from the first year's business, as follows:—

LOCAL BUSINESS.

235,000 inhabitants, in 14,000 square miles of Territory,
at \$3 each,\$705,000

THROUGH BUSINESS.

77,500 Passengers at \$4	310,000
50,000 tons Merchandise, at \$4½	212,500
Miscellaneous Items	50,000

Gross Earnings \$1,277,500

From which deduct

Expenses of working Road 45 per cent.	\$574,875
State Tax ½ of one per cent. on expenditure	40,000

614,875

Net Earnings, year ending June, 1859, \$662,625

Being a fraction (supposing the outlay to be \$8,000,000) over 8½ per cent. for the first years' return on the capital invested. Those who may have visited Northern Michigan or Wisconsin, with a view to ascertaining their resources, and who at the same time have marked the rapid progression in which the trade of all Western Railways is increasing, will pronounce my estimate a low one, and admit that whatever may be shown to be a *likely* return on capital so invested, four years hence, would be *certain* to advance fifty per cent. in the four years next succeeding. A capital of eight millions of dollars, therefore, embarked in the construction of the Port Huron and Lake Michigan Railway might be counted upon as safe to yield dividends of twelve and a half per cent. per annum in and after the year 1862.

I have assumed the cost of working the road at 45 per cent. of the gross earnings: that being the average expense of working the Central road for five years past.

In my calculations of revenue, I have supposed the road to be open for business by the close of 1857. By commencing the work this year, there would be no difficulty in completing it by the time stated. The facilities for carrying on all portions of the work simultaneously are good; the iron could be delivered at three points on the line—Port Huron, Grand Haven, and (by aid of the Grand River navigation) Lyons (75 miles east from Lake Michigan), and the work of track-laying thus accomplished within less than the ordinary time—supposing it had to be carried on from each end of the route only.

The close of 1858 is the period fixed for the completion of the Grand Trunk Railway of Canada—eight hundred miles from Portland to Sarnia. Its interests and yours are nearly allied ; and the event would be equally a momentous one for the projectors of these great undertakings and for the vast extent of territory they traverse, were they both to be thrown open to the travelling world in the same year. By that time Milwaukee will have completed her line across Wisconsin to Prairie-du-Chien. A celebration held upon the same day on the shores of the Northern Atlantic and the banks of the Upper Mississippi, in honor of their union by the completion of twelve hundred miles of Railway, would be an event not the least worthy of record in the History of our Iron Roads.

I have the honor to be,

Gentlemen,

Your obedient Servant,

W. SHANLY.

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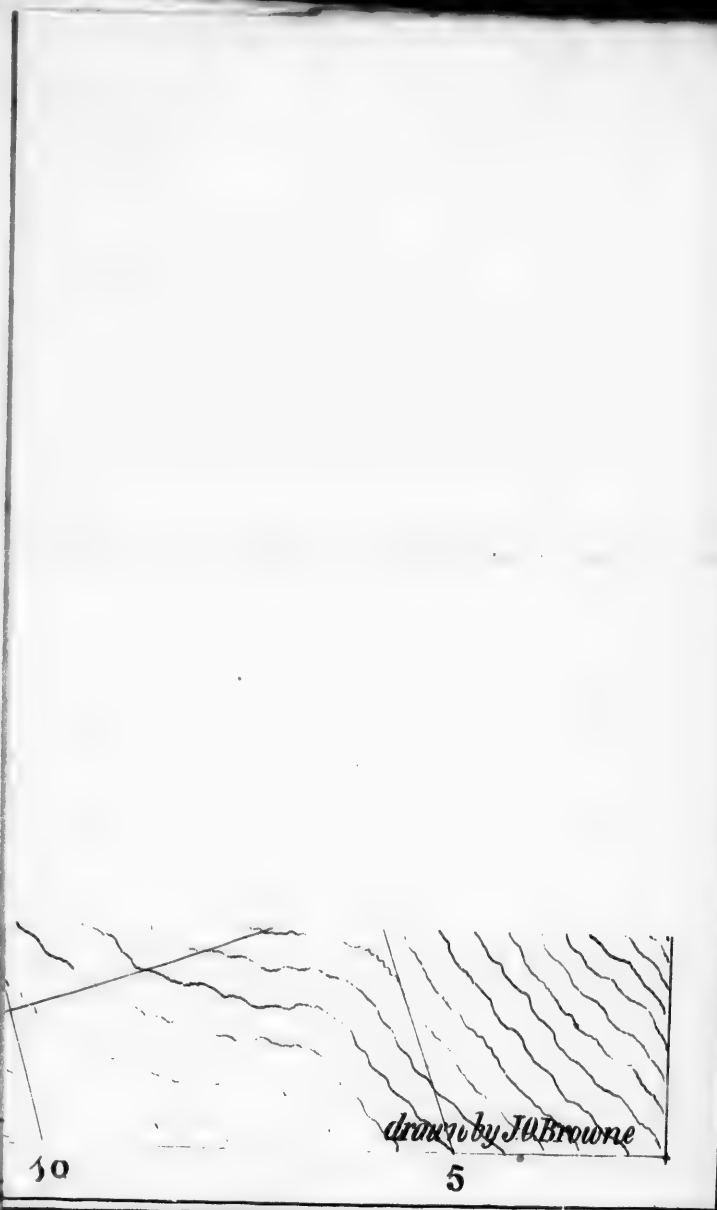
APPENDIX A.

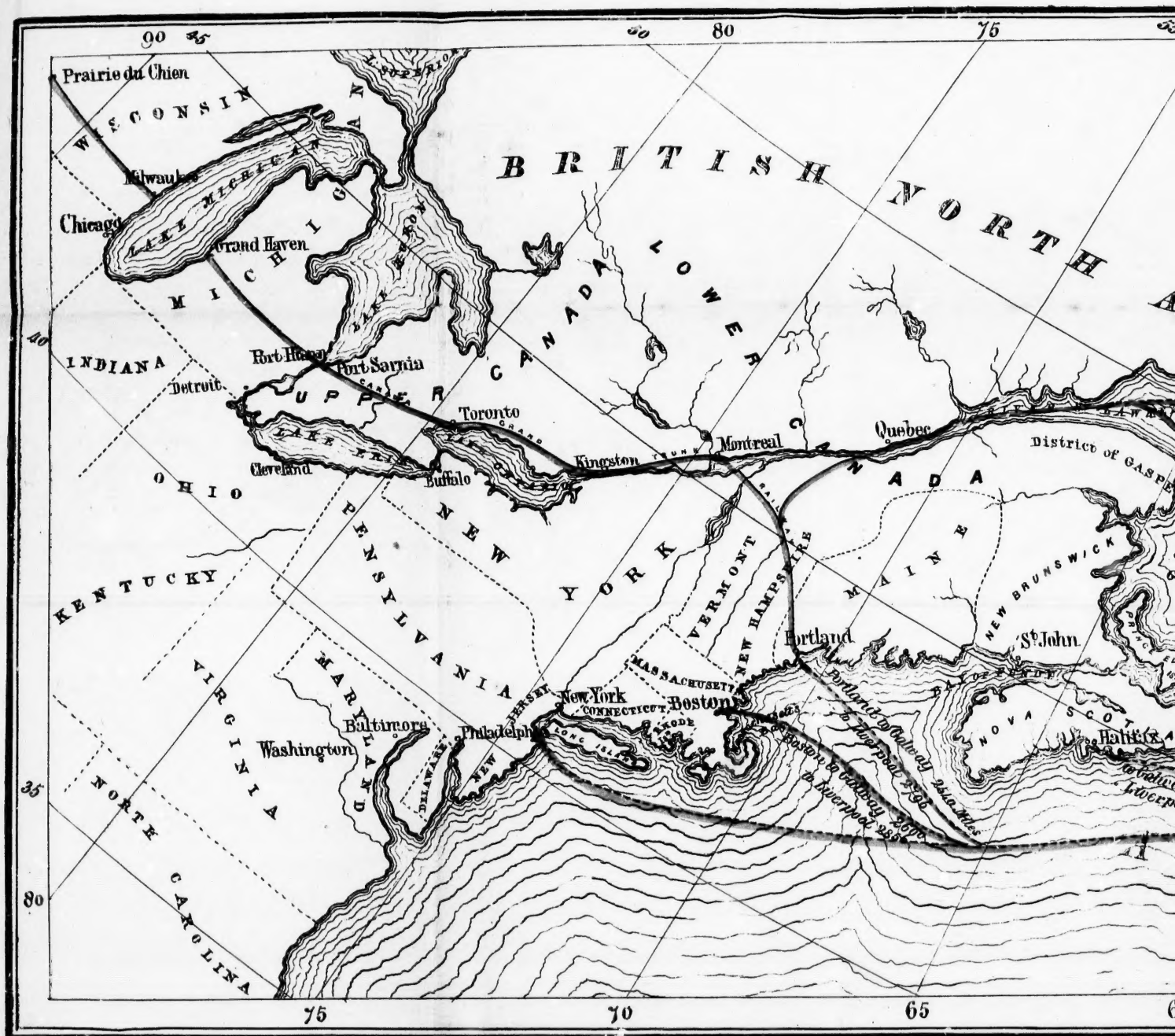
Condensed Statement of Business of Michigan Central Railroad, for the last Six Years.

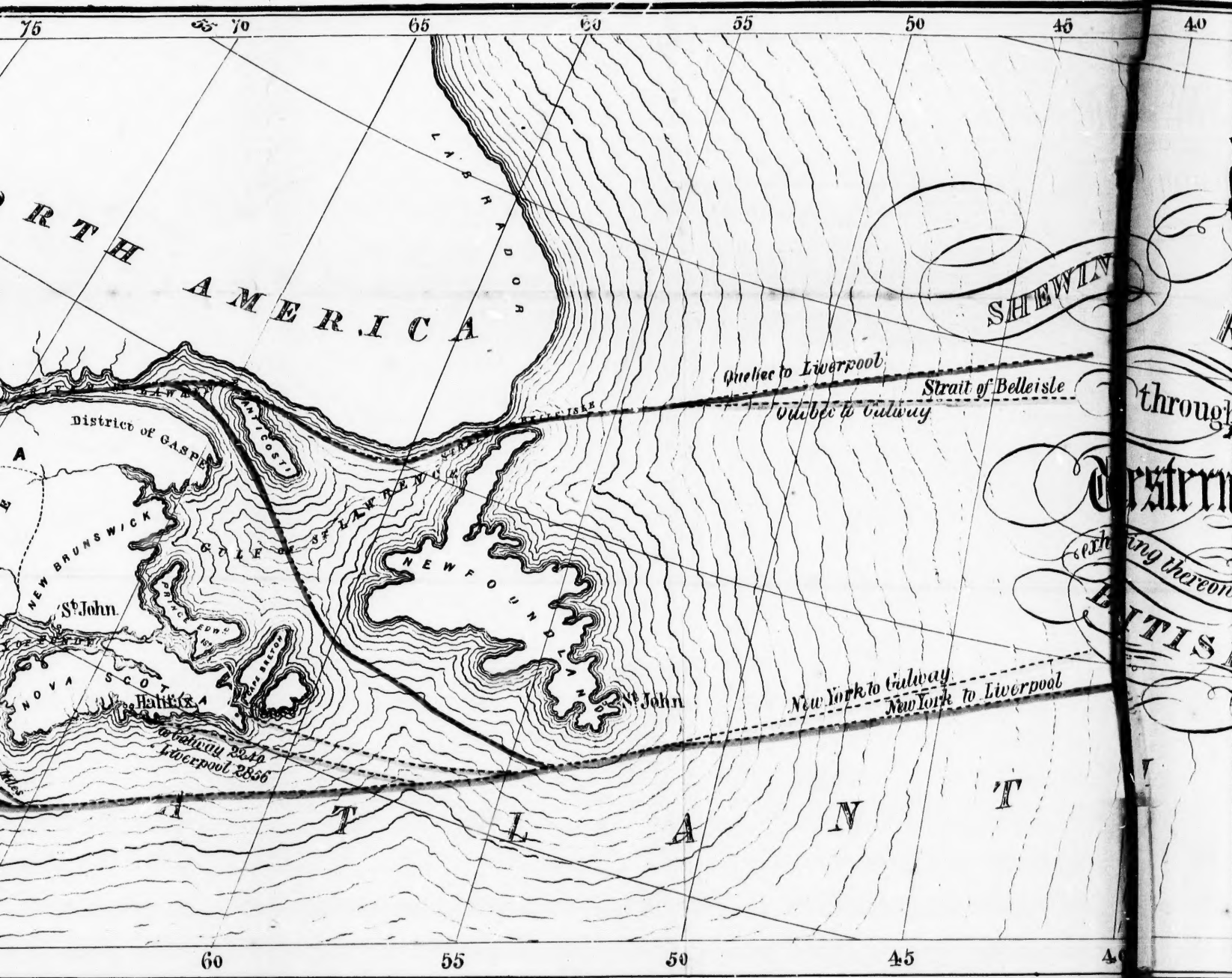
YEARS ENDING.	No. of Way Passengers.	No. of Through Passengers.	Total No. of Passengers.	No. of Tons Freights moved	Gross Earnings	Operating Ex- penses, includ- ing State Tax	Net Earnings.
May 31st, 1848.	65,363	14,368	80,231	45,919	401,047 52	201,858 46	199,189 06
May 31st, 1849.	78,254½	17,815½	96,070	59,194	427,429 53	239,233 76	188,195 77
May 31st, 1850.	97,082	55,590	152,672	810,160	691,972 42	301,649 13	390,323 29
May 31st, 1851.	117,973½	73,875	191,851½	134,208	947,347 39	341,664 65	605,682 74
May 31st, 1852.	133,972	87,227½	221,199½	123,127	1,069,947 66	404,747 30	665,200 36
May 31st, 1853.	170,059½	77,492½	247,552	161,226	1,153,660 91	566,731 98	586,928 93

APPENDIX B.

	St. Clair County.	Lapeer County.	Genesee County.	Shiawassee County.	Clinton County.	Ionia County.	Kent County.	Ottawa County.	Total.
Acres of improved land.									
" under Wheat.	47,977	29,344	24,638	20,549	14,917	20,132	24,870	1,478	183,905
Bushels of Wheat raised.	19,388	9,817	8,055	7,744	4,868	7,021	6,888	471	55,210
" of other grains.	196,000	88,339	71,459	62,836	42,381	57,133	59,619	1,704	567,470
Horses	15,300	119,865	123,475	80,366	76,780	76,047	136,815	9,602	778,372
Neat Cattle	1,846	858	1,183	602	443	621	879	115	6,557
Swine	1,014	4,273	6,675	4,113	3,764	4,725	6,090	955	36,639
Sheep	2,400	1,772	3,693	3,410	2,834	3,025	4,091	726	21,952
Wool (pounds)	18,368	12,206	16,663	6,322	4,240	6,964	6,482	60	71,305
Saw Mills	41,605	31,064	48,454	18,480	11,509	17,220	15,277	127	183,736
Lumber sawed (feet) ..	28	18	17	7	9	14	20	9	122
Capital invested	74,280,789	4,455,090	7,592,000	1,030,000	1,325,000	3,273,000	7,920,000	24,265,000	124,090,879
Persons employed	\$114,100	\$23,700	\$33,050	\$10,400	\$10,000	\$15,150	\$11,250	\$38,300	\$398,259
Flouring Mills	520	22	101	10	11	40	66	176	940
Runs of Stones	5	.....	5	3	2	6	5	.....	34
Barrels of Flour	10	8	11	6	4	10	9	.....	50
Capital invested	4,421	6,200	5,100	9,415	1,500	8,900	15,500	.....	51,036
Merchandise Imported ..	\$6,500	\$19,500	\$101,400	\$16,000	\$4,500	\$14,000	\$19,500	.....	\$181,400
	\$68,500	\$39,440	\$100,745	\$15,000	\$12,450	\$57,200	\$260,160	\$70,000	\$653,495







SHEWING

Quebec to Liverpool

Strait of Belle Isle

Halifax to Liverpool

New York to Halifax

New York to Liverpool

through

Crystal

existing thereon

BRITISH

40 35 30 25 20 15 60

MAP
from
EUROPE

THE ROUTES

2680 Miles

through CANADA to the

Eastern States of America

and

relative Distances

from the

SH

AND

AMERICAN

PORTS

2400 Miles

to Galveston 1800

2815 Miles

3075 Miles

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